

REMARKS

Claims 1-51 are pending. Claims 17-51 have been withdrawn from consideration. Claims 1, 2, 13 and 14 are hereby amended. Claim 2 was amended to correct a typographical error.

Objections

The Office Action states in part:

Claims 13-14 are objected to because of the following informalities: 'the at least on tail should be changed to - - the continuous strip-. Appropriate correction is required.

Applicants have amended claims 13 and 14 as requested.

§ 103 Rejections

Claims 1-16 stand rejected under 35 USC § 103(a) as being unpatentable over Ramey et al. (USPN 6,146,202)

The Office Action states in part:

As per claim 1, Ramey discloses in figs. 1 and 15 an electrical header connector 400 comprising: a header body 402 having an internal surface 422 and an external surface 424, the header body including a plurality of first openings 416 and a plurality of second openings 418 extending from the internal surface to the external surface; and a plurality of shield blades 406 configured for insertion into the plurality of second openings 418, each of the plurality of shield blades having at a first end 462 thereof a generally right angle shielding portion 428 configured to be disposed adjacent to a corresponding one of the pluralities of signal pins 404. Ramey does not explicitly disclose that the first ends 462 of the plurality of shield blades 406 are substantially coplanar with the internal surface 422 of the header body. Ramey does disclose in fig. 15 that the first ends 462 extend from the external surface 424 through throat portions 440, 442 to the internal surface 422. It is unclear how far the first ends 462 extend from the surface 422; however, it is clear to one skilled artisan that a distance extended out from the surface (planar) 422 is related and thus one would consider the first ends 462 and the surface 422 are substantially coplanar. In any event, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to make the first ends 462 extending not to too far from the surface 422 and extending far enough to make electrical connection, so that the first ends 462 could consider substantially coplanar with the surface 422. This is because to compact the header connector and to make such header connector a relatively smaller in size.

As per claims 2-6, Ramey discloses a plurality of signal pins 404 configured for insertion into the plurality of first openings 416 to form an array of pin contacts 426 extending from the internal surface 422 of the header body; wherein the first and second openings 416, 418 are arranged in the header body such that the generally right angle shielding portions 428 of the plurality of shield blades 406 substantially surround the plurality of signal pins 404 to form a coaxial shield around each of the plurality of signal pins; wherein the plurality of signal pins and the plurality of shield blades are retained in the header body by press-fit; wherein the generally right angle shielding portion of each of the plurality of shield blades includes first and second leg portions 430, 432 and wherein each of the plurality of second openings 418 in the header body has a generally right angle shape for receiving the generally right angle shielding portion

428 of a shield blade (figs. 15, 15a, 16, and col. 12, line 45 to col. 13, line 45).

As per claim 7, Ramey discloses that each of the plurality of generally right angle second openings 418 includes first and second narrowed throat portions 440,442 dimensioned to engage the first and second leg portions 430,432 of the generally right angle shielding portion 428 of a shield blade to hold the shield blade in place (fig. 16, col. 13, lines 19-33).

As per claims 8-9, Ramey discloses that each of the plurality of generally right angle second openings 418 in the header body includes a central portion 434 coupled to the first and second end portions 436,438 by the first and second narrowed throat portions 440,442; the central portion and the first and second end portions of each of the plurality of generally right angle second openings are shaped to provide an air gap 444 surrounding the generally right angle shielding portion of a shield blade (fig. 16 col. 13, lines 19-37).

As per claims 10-12, Ramey discloses that each of the plurality of shield blades 406 has a second end 464 thereof extending beyond the external surface of the header body, the second end configured for engagement with a printed circuit board 34; wherein the plurality of shield blades 406 are formed in a continuous strip of material; wherein the continuous strip of material forming the plurality of shield blades further comprises at least one tail 448 configured for engagement with a printed circuit board 34. (figs. 15, 15a, 16, and col. 12, line 45 to col. 13, line 65).

As per claim 13, Ramey discloses the invention substantially as claimed except for one tail for every two shield blades. It would have been obvious to one of ordinary skill in the art to have one tail for every two shield blades in order to save material.

As per claims 14-16, Ramey discloses that the continuous strip of the shield blades comprises a plurality of tails spaced along the continuous strip of material forming the plurality of shield blades; wherein the plurality of tails are electrically connected to a common ground (ground trace in pcb 34); wherein at least a portion of the plurality of shield blades are formed in a continuous strip of material (figs. 15, 15a, 16, and col. 12, line 45 to col. 13, line 65).

Applicants have amended claim 1 to clarify that the first ends of the shield blades are configured such that they do not make contact with socket connector shielding elements when the header connector is assembled with a socket connector. This amendment is supported by the specification, e.g., at p. 8, line 16 to p. 9, line 8.

Applicants submit that according to MPEP 2142, to establish a case of *prima facie* obviousness, three basic criteria must be met: 1) there must be some suggestion or motivation, either in the references or generally known to one skilled in the art, to modify or combine reference teachings, 2) there must be reasonable expectation of success, and 3) prior art references must teach or suggest all the claim limitations. The ability to modify the method of the references is not sufficient. The reference(s) must provide a motivation or reason for making the changes. *Ex parte Chicago Rawhide Manufacturing Co.*, 226 USPQ 438 (PTO Bd. App. 1984).

Applicants respectfully submit that Ramey cannot support a case of *prima facie* obviousness as to the amended claims because, among other possible reasons, Ramey does not provide a motivation or suggestion for shield blades that do not make electrical contact with a socket connector. As explained in Ramey at col. 13, lines 6 to 18 and as shown in Fig. 15 of

Ramey, first ends 462 of shield blades 406 are elongated. As further explained in Ramey at col. 15, lines 61 to 64, as the socket connector 100 is inserted into the header connector 400, the shield blades 406 of the header connector 400 contact corresponding shield fingers 274 of the socket connector 100. Furthermore, there could be no reasonable expectation of success because, as explained in the specification at p. 8, line 25 to p. 9, line 8, one of ordinary skill in the art would not expect shield blades of a header connector that do no make grounding electrical contact with shielding elements of a socket connector to provide improved electrical performance. In addition, Ramey does not disclose all the elements of the present invention because it does not disclose shield blades of a header connector that do no make grounding electrical contact with shielding elements of a socket connector.

For these reasons, Applicant(s) submit that the cited references will not support a 103(a) rejection of the claims invention and request that the rejection be withdrawn.

In addition to the foregoing arguments, Applicant(s) submit that a dependent claim should be considered allowable when its parent claim is allowed. *In re McCairn*, 1012 USPQ 411 (CCPA 1954). Accordingly, provided the independent claims are allowed, all claims depending therefrom should also be allowed.

Based on the foregoing, it is submitted that the application is in condition for allowance. Withdrawal of the rejections under 35 U.S.C. 103 is requested. Examination and reconsideration of the claims are requested. Allowance of the claims at an early date is solicited.

The Examiner is invited to contact Applicant(s)' attorney if the Examiner believes any remaining questions or issues could be resolved.

Respectfully submitted,

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Date

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